



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/849,721	05/20/2004	Mark A. Hochwalt	713629.421	8654
27128 7590 01/28/2010 HUSCH BLACKWELL SANDERS LLP 190 Carondelet Plaza Suite 600 ST. LOUIS, MO 63105				
EXAMINER				
CHOI, FRANK I				
ART UNIT		PAPER NUMBER		
1616				
NOTIFICATION DATE		DELIVERY MODE		
01/28/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pto-sl@huschblackwell.com

Office Action Summary

Application No.

10/849,721

Applicant(s)

HOCHWALT ET AL.

Examiner

FRANK I. CHOI

Art Unit

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 50-55, 57, 58, 60-69, 71, 72, 74-83, 85, 86, 88-98, 100, 101, 103-107 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 50-55, 57, 58, 60-69, 71, 72, 74-83, 85, 86, 88-98, 100, 101, 103-107 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-692)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-419)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The invention is directed to a deodorant containing aspartic and/or fumaric acid, a synthetic zeolite and metal compound.

Claims 50-55,57,58, 60-69,71, 72, 74-83,85, 86, 88-98, 100, 101, 103-107 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 62-292165 in view of Furio (H1579), Gioffre et al. (US Pat. 4,795,482), HU 22187 T and JP 61106162.

JP 62-292165 discloses a deodorant comprising organic acid, for example, aspartic acid and an acidic metal salt of zinc, copper, iron, tin, etc. where the amount of the metal salt ranges from 10 to 40 wt%. It is disclosed that the deodorant can be combined with a carrier, such as zeolite, paper, cloth or other porous material. See pages 22, 23, English language translation of JP 62-292165.

Furio disclose the combination of intermediate ratio $\text{SiO}_2/\text{Al}_2\text{O}_3$ zeolite having a $\text{SiO}_2/\text{Al}_2\text{O}_3$ ratio of about 10 or less and a high ratio $\text{SiO}_2/\text{Al}_2\text{O}_3$ zeolite such as disclosed in US Pat. 4,795,482 for odor control (Column 3, lines 9-15, Column 4, lines 44-68).

Gioffre et al. (US Pat. 4,795,482) disclose that clinoptilolite has a nominal framework $\text{SiO}_2/\text{Al}_2\text{O}_3$ molar ratio of about 10 and an zeolite having at least about 90 percent framework of tetrahedral oxides units being SiO_2 tetrahedra, a sorptive capacity for water of less than 10 weigh percent when measure at 25 degrees Celsius and 4.6 torr, a pore diameter of at least 5.5

Angstroms, and a $\text{SiO}_2/\text{Al}_2\text{O}_3$ ratio of about 35 to infinity, preferably 200 to 500, where substantially all the water of hydration has been removed (Column 2, lines 14-68).

HU 22187 T discloses the combination of clinoptilolite with organic and inorganic additives for use as moisture absorbent and deodorant (Abstract).

JP 61106162 discloses that fumaric acid combined with a ferric salt is effective as a deodorant (Abstract).

JP 62-292165 discloses a composition for controlling odors containing the combination of aspartic acid, acidic metal salt of zinc, copper, iron, tin, etc which can be combined with a carrier, such as zeolite, paper, cloth or other porous material. The difference between JP 62-292165 and the claimed invention is that JP 62-292165 does not expressly disclose the use of a synthetic zeolite having at least about 90 percent framework of tetrahedral oxides units being SiO_2 tetrahedra, a sorptive capacity for water of less than 10 weight percent when measured at 25 degrees Celsius and 4.6 torr, a pore diameter of at least 5.5 Angstroms, where the water hydration has been substantially removed. However, the prior art amply suggests the same as the prior art discloses deodorant compositions and articles containing the combination of aspartic acid, zeolite and acidic metal salt (JP 62-292165), combinations of organic acids, such as fumaric acid and ferric salt as a deodorant (JP 61106162), that a mixture of intermediate zeolite, having a SiO_2/Al ratio of $\text{SiO}_2/\text{Al}_2\text{O}_3$ ratio of about 10 or less, and high zeolite is effective for controlling odor (Furio) and that the synthetic zeolite disclosed in US 4,795,482 is a suitable high zeolite and has at least about 90 percent framework of tetrahedral oxides units being SiO_2 tetrahedra, a sorptive capacity for water of less than 10 weight percent when measured at 25 degrees Celsius and 4.6 torr, a pore diameter of at least 5.5 Angstroms, where the water

hydration has been substantially removed and that clinoptilolite can be combined with organic and inorganic additives for use as moisture absorbent and deodorant. As such, one of ordinary skill in the art would have been motivated to modify the prior art as above with the expectation that the use of the combination of clinoptilolite, synthetic zeolite, aspartic acid and acidic metal salt would be effective in controlling odors. Further, one of ordinary skill in the art would expect that fumaric acid would also be effective in place of or in addition to the aspartic acid.

The Examiner has duly considered the Applicant's arguments but deems unpersuasive.

The Applicant argues that the claimed invention does not include absorption of components on to zeolite. However, the claims do not require that there be no absorption of the other components on the zeolite. Further, although the prior art does disclose that the metal salts and organic acids can be absorbed on zeolite, the prior art does not require that said metal salts and organic salts be absorbed on the zeolite and discloses the same as an option. Zeolite is disclosed as indicated above to have deodorant properties. Further, as indicated above, the prior art discloses that mixtures of metal salts and organic salts by themselves have deodorant properties. As such, it would be obvious to one of ordinary skill in the art to mix the two products together with the expectation that the combination would have deodorant properties.

Therefore, the claimed invention, as a whole, would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention has been collectively taught by the combined teachings of the references.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

A facsimile center has been established in Technology Center 1600. The hours of operation are Monday through Friday, 8:45 AM to 4:45 PM. The telecopier number for accessing the facsimile machine is 571-273-8300.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Choi whose telephone number is (571)272-0610. Examiner maintains a compressed schedule and may be reached Monday, Tuesday, Wednesday and Thursday, 6:00 am – 4:30 pm (EST).

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Johann R. Richter, can be reached at (571)272-0646. Additionally, Technology Center 1600's Receptionist and Customer Service can be reached at (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frank Choi
Patent Examiner
Technology Center 1600
January 26, 2010

/Johann R. Richter/
Supervisory Patent Examiner, Art Unit 1616